

Orange County Natural Areas Inventory

OWASA MITIGATION TRACT

New Site 2004

Site Number: C04

Site Significance: County

Size: 682 acres

USGS Quadrangle: Efland

SIGNIFICANT FEATURES: The main significance of this parcel is that it is a large piece of protected open space in a section of the county that has virtually none. Although obtained as a mitigation tract from a timber company in 1982, it had not been converted to a pine plantation and much of the site is in natural condition.

NATURAL COMMUNITIES: Dry-Mesic Oak—Hickory Forest, Dry Oak—Hickory Forest

GENERAL DESCRIPTION: This site includes four types of habitats: pine forest, mixed hardwood-pine forest, oak-hickory forest, and streamhead bottomland forest. The first is composed of shortleaf (*Pinus echinata*), Virginia (*P. virginiana*), and loblolly (*P. taeda*) pines in dense stands with sprout hardwoods beneath. Previous forest management may have favored these few areas as pine dominated. One area supports a small population of pink lady's-slipper (*Cypripedium acaule*).

The second forest type here is mixed hardwood-pine, which covers about half of the site. Prominent are white oak (*Quercus alba*), southern red oak (*Q. falcata*), mockernut hickory (*Carya alba*), red maple (*Acer rubrum*), and shortleaf and Virginia pines. Black gum (*Nyssa sylvatica*) and loblolly pine are scattered. Understory trees include sourwood (*Oxydendrum arboreum*) and sassafras (*Sassafras albidum*). The percentage of pines varies considerably across the site, and in places reaches 50 %. Canopy trees average 15 inches dbh and 80 feet tall. A huge colony of ground cedar (*Lycopodium flabelliforme*) occurs here.

Oak-hickory forest covers about a third of the site. It occurs at the highest elevations on flattish ridges and gentle slopes. Dominants include white oak, black oak, mockernut hickory, and red maple. Virginia pines are scarce to scattered. Sourwood and dogwood (*Cornus florida*) occur in the understory. This forest type is typical of many on acid soils in Orange County. In two localized spots, the composition changes due to soil differences, resulting in a Basic Oak-Hickory Forest. Dominants include white oak, shagbark hickory (*Carya ovata*), mockernut hickory, and Biltmore ash (*Fraxinus americana* var. *biltmoreana*). Virginia pine and red maple are scattered. Understory trees are red cedar (*Juniperus virginiana*), southern sugar maple (*Acer barbatum*), redbud (*Cercis canadensis*), and dogwood. Shrubs include blue or shiny haw (*Viburnum rufidulum*) and fringe-tree (*Chionanthus virginicus*).

The fourth forest type is a bottomland forest, found at headwaters of streams and along Turkey Hill Creek, a tributary of Cane Creek. Tall tulip poplar (*Liriodendron tulipifera*), sweet gum (*Liquidambar styraciflua*), red maple, and river birch (*Betula nigra*) dominate over dogwood and spicebush (*Lindera benzoin*). Vines are frequent, including grape, poison ivy, virginia creeper, trumpet vine, Japanese honeysuckle. Several species of ferns cover the